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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,170	06/30/2003	Lakdas Nanayakkara	1070.26	7800

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EXAMINER

GRAYSAY, TAMARA L

ART UNIT	PAPER NUMBER
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3636

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/609,170	Applicant(s) NANAYAKKARA, LAKDAS	
	Examiner Tamara L. Graysay	Art Unit 3636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2006 and 10 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 and 09 February 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings filed 09 February 2006 and 30 June 2003 are objected to because of the following:
 - a. FIGS. 1-6 fail to comply with 37 CFR 1.84(u)(2) because the view numbers are not larger than the numbers used for reference characters.
 - b. FIGS. 8 and 9 fail to comply with 37 CFR 1.84(h) because they are not clearly separated from each other.
 - c. FIGS. 1, 2 and 7-9 fail to comply with 37 CFR 1.84(p)(3) because the reference characters are not at least .32cm (1/8 inch) in height.
 - d. FIGS. 1, 4, 5 and 7-9 fail to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 44 (FIGS. 1, 7, 8); 46 (FIG. 9); 48 (FIG. 9); and 36.1 (FIGS. 4, 5).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

- a. The claim limitation of the equally offset pile cap recesses defining an angle of 10 to 30 degrees relative to the z-axis center, as recited in claim 21, is not fully supported in antecedent in the specification because the specification only mentions the range of 15 to 30 degrees (e.g., page 6, the last line of the first paragraph).
- b. The claim limitation “concrete port” as recited in claim 15, lacks antecedent basis in the specification.

Claim Objections

3. Claim 21 is objected to because of the following informalities:

Claim 21: at line 2, [[said lower surfaces of pile caps]] should be said lower surface of each of said pile caps for consistency; at line 4, [[pile]] should be recess for consistency with the three recesses which are further limited; and, at line 6, [[lower surfaces of said pile cap]] should be said lower surface of each said pile cap for consistency.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-16 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yerushalmi (US-4433522) in view of Gagliano (US-6578333).

Claim 1: Yerushalmi shows (FIGS. 10-12) and mentions (4:19-27) an opposing pair of elongated vertical panels (202, 204) proportioned and secured in two channels (grooves 212, 214) formed in an upper surface of a “pile cap” (concrete base or surface 210). Yerushalmi also shows (FIG. 10) and mentions (1:43047) the use of filling material between the panels that include concrete or asphalt filler, considered to be high shock absorbent or resistant material.

Yerushalmi lacks multiple recesses and a plurality of piles disposed underground and inserted into one of the recesses.

Gagliano depicts (FIGS. 1-3) and teaches (4:6-33) integrated elongated piles (2) that are underground (extended below the ground surface) and inserted into a substantially z-axis recess (e.g., 3) in the lower surface of a “pile cap” (foundation wall surface 1i, 1ii) as broadly recited. The Gagliano piles are in “multiple substantially z-axis recesses in that the piles are in a plane coincident with or parallel to the xz plane of the cross section view taken in FIG. 3 for example. The *substantially* vertical orientation of

the piles is a “z-axis” orientation insofar as applicant’s claimed piles may be angled in a manner similar to the Gagliano piles.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yerushalmi to include elongated z-axis piles and corresponding *substantially* z-axis recesses, such as suggested by Gagliano, in order to laterally stabilize the base of the wall relative to the ground on which it rests.

Claims 2-16 and 18-21: Further, a change in shape or size is generally recognized as being within the level of ordinary skill and not a patentable distinction over an otherwise unpatentable device.

See MPEP § 2144.04(IV)(B), which reads: In re Daily, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (The court held that the configuration of the claimed disposable plastic nursing container was a matter of design choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.).

In the present application, the ratios and proportional alignments, spacing, sizes, positioning, etc. would have been generally recognized as being a matter of design choice and within the level of ordinary skill in the structural engineering field and dependent upon the intended purpose and use of the composite barrier device. The level of ordinary skill in the structural engineering field includes the knowledge of various materials and their properties and knowledge of design factors for structural elements to suit an intended purpose, i.e., blast protection. Applicant has not provided, for example, any evidence that the particular arrangement would achieve an unexpected result based on the particular size or shape of the elements.

Response to Arguments

5. Applicant's arguments filed 09 February 2006 have been fully considered but they are not persuasive.

Applicant argues that the Gagliano piles include upper portions that extend above ground.

In response, the recitation of the piles "being disposed underground" does not preclude a portion of the piles extending above ground, but rather only requires that a portion of the piles be disposed underground.

Applicant argues that Gagliano fails to include an upper end of the pile inserted into a recess.

In response, each of the Gagliano recesses (3) receives an "upper end" of the piles as broadly recited insofar as the pile extends into the recess at an upper end.

Applicant argues that the references are not combinable.

In response, the Gagliano reference is directed to a ground engaging footing or foundation for a wall and is thus combinable with Yerushalmi which also depicts a ground engaging footing (schematically represented at element 210 as having a flat bottom). Therefore, the references are combinable.

Applicant argues that the driven piles have to be driven through the concrete base, which damages the integrity of the Yerushalmi foundation.

In response, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references.

Rather, the test is what the combined teachings of the references would have suggested to

those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Applicant argues that the Gagliano pre-cast footings are not suitable for blast-resistant wall structure.

The argument has been interpreted to mean that applicant believes that the Gagliano reference is nonanalogous art due to the alleged lack of suitability. In response, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the field of endeavor is structural engineering and design. One of ordinary skill in the field of structural engineering and design would have solved the problem of lateral force on a vertical wall structure by providing lateral support or lateral reinforcement at the base of the wall, i.e., piling extending into the ground provide a resistance to lateral forces. Applicant's broad claim limitation of "a plurality of z-axis elongate piles" does not structurally define over the Gagliano piles. Further, applicant has not provided any evidence of the lack of suitability of the Gagliano piles that is deemed persuasive. Alternatively, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. Applicant's claim does not structurally distinguish from Gagliano's plurality of z-axis elongate piles.

Conclusion

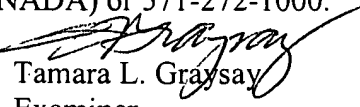
6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamara L. Graysay whose telephone number is 571-272-6728. The examiner can normally be reached on Mon - Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Cuomo, can be reached on 571-272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Tamara L. Graysay
Examiner
Art Unit 3636